

## 50W, Cost Efficient, Industrial Quality Compact DC/DC Converter MIM 50 Series

- Rugged industrial quality
- Conduction/convection cooled
- Full electronic protection
- Field-proven design
- High immunity
- Cost optimized
- Small size



The MIM 50 Series rugged, industrial quality DC/DC converter uses field-proven technology to generate the required output power. It is a mature design with a track record in numerous applications. Cooling is via baseplate to a heatsinking surface and by natural convection. The standard version operates at full specification over a wide temperature range. Options include heavy ruggedizing and conformal coating for additional immunity to shock, vibration and humidity. Low component count, large design headrooms, and the use of components with established reliability result in a high MTBF. The unit is manufactured at our plant under strict quality control.

### SPECIFICATIONS

<p><b>Input Voltage</b> 24Vdc (21 – 30V) 48Vdc (42 – 60V) 125Vdc (105 – 145V) Other inputs available on request</p>	<p><b>Output Voltage/Current</b> 12Vdc/4A or 24Vdc/2A Output is floating, either terminal can be grounded Other outputs available on request</p>	<p><b>Efficiency</b> Min. 80% at full load</p>	<p><b>Indicators</b> None</p>
<p><b>Input Protection</b> Inrush current limiting Surge protection Reverse polarity protection Internal safety fuse Lower voltage than the specified minimum input will not damage the unit.</p>	<p><b>Redundancy Diode</b> None</p>	<p><b>Operating Temperature Range</b> -25 °C to +55 °C cold plate temperature for full specification</p>	<p><b>Control Input</b> None</p>
<p><b>Isolation</b> 1500Vdc input to chassis 2200Vdc input to output 500Vdc output to chassis</p>	<p><b>Line/Load Regulation</b> +/- 1% combined from no load to full load.</p>	<p><b>Temperature Drift</b> 0.03% per °C over operating temperature range</p>	<p><b>Alarm Output</b> None</p>
<p><b>Standards</b> Meets EN 60950 and corresponding UL and CSA standards</p>	<p><b>Dynamic Response</b> Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time</p>	<p><b>Cooling</b> Conduction via base plate and natural convection</p>	<p><b>Package / Dimensions (W x H x L)</b> FM: 66 x 38 x 163 mm (2.6" x 1.5" x 6.4") including terminal block and flanges Mounting holes are clear</p>
<p><b>EMI</b> EN55022 Class B</p>	<p><b>Output Ripple / Noise</b> Better than 1% peak to peak or 0.2% RMS of the output voltage (20MHz BW)</p>	<p><b>Environmental Protection</b> Basic ruggedizing Heavy ruggedizing and conformal coating available as an option</p>	<p><b>Weight</b> 400g (0.9 lb)</p>
<p><b>Switching Frequency</b> 135kHz +/- 5kHz</p>	<p><b>Output Overload Protection</b> Rectangular current limiting with hiccup-type short-circuit protection</p>	<p><b>Shock/Vibration</b> IEC 61373 Cat 1 A&amp;B</p>	<p><b>Connections</b> 5-pole terminal block (3/8" spacing)</p>
	<p><b>Output Overvoltage Protection</b> Transorb across the output</p>	<p><b>Humidity</b> 5 - 95% non-condensing</p>	<p><b>RoHS Compliance</b> Fully compliant</p>
		<p><b>MTBF</b> 150,000 hours @ 45 °C Demonstrated MTBF is significantly higher</p>	<p><b>Warranty</b> Two years subject to application within good engineering practice</p>



European Stocking Distributor  
Phone: +41 44 730 33 53

Email: [sales@hvps-condatas.com](mailto:sales@hvps-condatas.com) / [www.hvps-condatas.com](http://www.hvps-condatas.com)  
Rietbachstrasse 7, 8952 Schlieren (ZH), Switzerland